



3 graphite flakes which have been processed through an  
4 intercalation process.

1 9. A coated fuel cell bipolar plate as claimed in  
2 claim 1, wherein the overcoating is electrically  
3 conductive.

1 10. A coated fuel cell bipolar plate as claimed in  
2 claim 1, wherein the overcoating is hydrophobic.

1 11. A coated fuel cell bipolar plate as claimed in  
2 claim 1, wherein the overcoating is anisotropic.

1 12. A coated fuel cell bipolar plate as claimed in  
2 claim 1, wherein the overcoating has a thickness  
3 approximately between 0.04 and 1.0 millimeters.

1 13. A method of manufacturing a coated bipolar plate  
2 for a fuel cell, the method comprising the steps of:  
3 providing a metal plate with an outer surface;  
4 providing an electrically conductive coating over the  
5 outer surface; and  
6 providing an overcoating over the coating, the  
7 overcoating including graphite.

1 14. A method as claimed in claim 13, wherein the  
2 coating is an emulsion, suspension or paint including  
3 graphite particles. (DAG™) Acheson

1 15. A method as claimed in claim 13, wherein the  
2 overcoating includes exfoliated graphite.

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1 16. A method as claimed in claim 13, wherein the  
2 step of providing the overcoating includes pressing at  
3 least one sheet of graphite foil over the coating.

1 17. A method as claimed in claim 16, wherein the  
2 metal plate is heated during the pressing step.

1 18. A method as claimed in claim 13, further  
2 comprising the step of:  
3 forming a flow field on the overcoating.

1 19. A method as claimed in claim 13, further  
2 comprising the step of:  
3 mechanically deforming the metal plate, the coating  
4 and the overcoating to create a flow field.

1 20. A method of manufacturing a coated bipolar plate  
2 for a fuel cell, the method comprising the steps of:  
3 providing a metal plate with an outer surface;  
4 providing an electrically conductive coating over the  
5 outer surface; and  
6 providing an overcoating over the coating, the  
7 overcoating being electrically conductive and hydrophobic.